REMARKS/ARGUMENTS

Reconsideration of this application and entry of the foregoing amendments are respectfully requested.

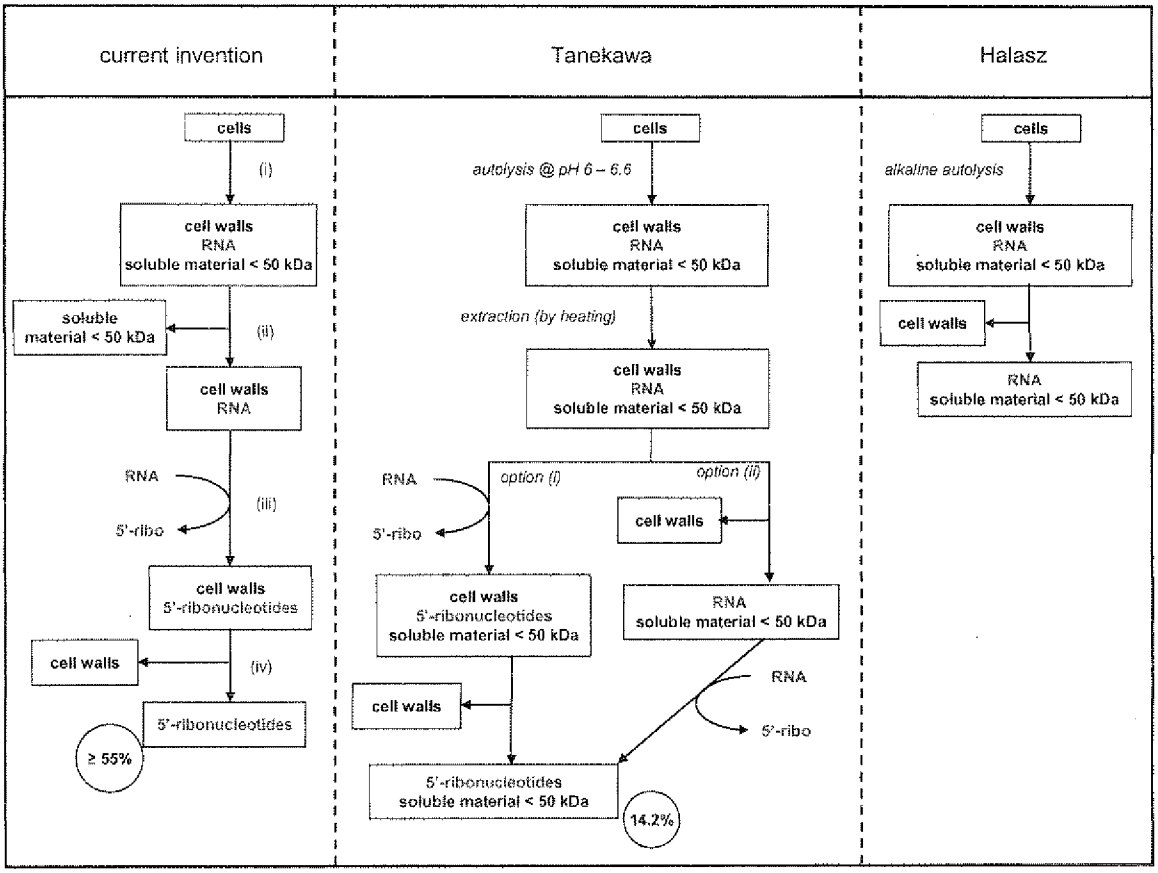
At the outset, the undersigned wishes to express appreciation to Examiners Lau and Olson for the very helpful interview of January 13, 2011. The Examiner's record adequately summarizes the substance of that interview and, thus, no further comment is believed necessary.

Claim 6 as now amended is fully supported by the disclosure, with particular attention being directed to Example 2 (see comments that follow). Claims 11-15 and 21-29 have been revised to define the invention with additional clarity and, where appropriate, to properly depend from claim 6 as now presented. Claims 10, 20 and 30 have been cancelled without prejudice.

In Example 2, the cells are treated to release their cell contents by autolysis (p. 11, lines 5-8); the hydrolysate, including the cell walls, is filtered over a 50 kDa filter to separate the RNA and the cell walls from soluble cell material smaller than 50 kDa (lines 9-12); the RNA is converted into 5'-ribonucleotides while in the presence of the cell walls but in the absence of the soluble cell material smaller than 50 kDa (which was removed in the previous step, lines 13-15); and finally the cell walls are removed from the 5'-ribonucleotides (lines 16-17).

Table 2 shows the results. It can be seen that the amount of 5'-IMP and 5'-GMP is 18% w/w each. Given the nature of RNA, the total amount of RNA is 2 times 18% + 18% which equals **72% w/w**.

In the process as claimed, only two separation steps are required to obtain a composition containing at least 55% to 5'-ribonucleotides. This clear advantage of the claimed process over those of Tanakawa et al and Halasz is evident from the following schematic:



Tanekawa et al

As in the claimed process, the process of Tanekawa et al also comprises two separation steps (col. 2, lines 30-45). In Tanekawa et al, the cells are treated to release the cell contents, resulting in an autolysate containing RNA, cell walls, and soluble cell material smaller than 50 kDa. The remainder of the process can proceed via two options:

Option (i): the RNA is converted into 5'-ribonucleotides while in the presence of the cell walls but also in the presence of the soluble cell material smaller than 50 kDa, and, after the conversion, the cell walls are removed.

Option (ii): the cell walls are removed and the RNA is converted into 5'-ribonucleotides in the absence of the cell walls but in the presence of the soluble cell material smaller than 50 kDa.

In Example 1 of Tanekawa et al, a yeast extract is produced according to option (i): RNA is converted to 5'-ribonucleotides as part of an autolysate, i.e., in the presence of both cell walls and soluble cell material smaller than 50 kDa (col. 5, line 62 – col. 6, line 7). Next, the cell walls are removed (col. 6, lines 10-11). Depending on the pH of the autolysis, the maximum amount of 5'-ribonucleotides is 4 x 3.55 = **14.2% w/w**.

Thus, compared to the claimed process, Tanekawa et al differs in that prior to

- In Tanekawa et al, the RNA to 5'-ribonucleotides conversion takes place in the presence of both cell walls and soluble cell material smaller than 50 kDa;
- In the present invention, prior to the RNA to 5'-ribonucleotides conversion, the soluble cell material smaller than 50 kDa is removed

Tanekawa et al does not teach, nor would it have suggested, that by converting RNA to 5'-ribonucleotides in the presence of cell walls and in the absence of soluble cell material smaller than 50 kDa , the amount of 5'-ribonucleotides is 72/14.2 = 5 fold higher as compared to converting RNA to 5'-ribonucleotides in the presence of both cell walls and soluble cell material smaller than 50 kDa.

Tanekawa et al does teach that it is possible to apply a separation step prior to the RNA → 5'-ribonucleotide conversion, but this is exactly the wrong separation step, namely the separation out of the cell walls. Applicants have appreciated, and the claims reflect the fact, that the cell walls should be present during RNA → 5'-ribonucleotides conversion. Moreover, in

Tanekawa et al the soluble cell material smaller than 50 kDa is present, whereas in the claimed process the small soluble material is absent.

Nowhere would Tanekawa et al have suggested applying a separation step in which soluble cell material smaller than 50 kDa is removed, let alone removing soluble cell material smaller than 50 kDa prior to the RNA into 5'-ribonucleotides conversion.

Halasz

Halasz does not remedy the deficiencies of the process of Tanekawa et al. Like Tanekawa et al, Halasz teaches separating RNA from the cell walls, but Halasz does not teach removing soluble cell material smaller than 50 kDa from RNA prior to conversion of RNA to 5'-ribonucleotides. Halasz teaches that RNA (by which is meant RNA which has been separated from the cell walls) can be used to produce 5'-ribonucleotides, but such conversion must necessarily take place in the absence of cell walls, since these had been removed earlier.

Neither of Halasz nor Tanekawa et al teaches or would have suggested that, prior to conversion of RNA into 5'-ribonucleotides, soluble cell material smaller than 50 kDa should be removed and the cell walls should be retained.

Applicants again submit that the claimed invention would not have been obvious over the cited art and reconsideration is requested.

The Examiner is urged to contact the undersigned by phone if, after considering the above, he finds that any issues remain so that every effort can be made to resolve them.

This application is submitted to be in condition for allowance and a Notice to that effect is requested.

Respectfully submitted,

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